

Displaying a sequence

SE-03-0691

Displaying a sequence in the Event List Editor

Up to 16 sequence tracks of cues and other events can be displayed on the Event List Editor panel.

Information on editing a sequence from this panel is in "Editing from the Event List Editor."

The Event List Editor panel

Cues, musical notes and sound effects placed on the sequencer tracks are **events** which play back in sync when the sequence is triggered. A thunderclap, a footstep, narration or music can be precisely synchronized to play back at the moment it should occur. Individual events and tracks can be edited and slid independently.

The Event List Editor is activated by clicking the EENTS box of the Selection panel from the Audio Event Editor.

If the event is a musical note recorded directly into the sequencer, the name of the track timbre appears as the event. If the event is a cue recorded onto a Direct-to-Disk track and placed into a sequence, the name of the cue appears as the event.

Events from a notelist (a list of notes recorded into the sequencer) and events from a cuelist (a list of cues) cannot be mixed on the same track. Both types can be played back alone or in sync with each other or with the Direct-to-Disk tracks.

Event List Editor panel

EVENT LIST EDITOR									
00:01:00:00.00	<input type="checkbox"/>	1.	VoiceOver01	100.0	<input type="checkbox"/>	4.	Music	100.0	
Event Start Time			Duration	End Time			Duration	End Time	
00:01:10:00.00							SFX01	00:00:03	00:01:13:00
00:01:56:14.00							SFX02	00:03:15	00:02:11:04
00:02:15:00.00			VoiceOver01	00:00:34	00:02:49:23				
00:02:35:00.00			VoiceOver02	00:00:23	00:02:58:01				
00:02:58:00.00							SFX03	00:01:02	00:03:58:00
00:03:47:00.00							SFX04	00:00:04	00:04:34:25
00:04:26:22.00							SFX05	00:00:23	00:04:46:00
00:06:35:00.00			VoiceOver03	00:00:15	00:06:50:12				
00:08:48:00.00							SFX06	00:00:02	00:08:50:06
00:08:56:00.00			VoiceTag01	00:00:10	00:09:06:06				
Set Display	Select Time	Set Edit	Select	Verify		Add Note	Add Ind Lp	Delete	Move
Contents	Format	Features	Tracks			Add Note s	Add RTE	Events	Copy
									Play From

Setting the contents of the display

The panel can be formatted to display up to 16 tracks in any order, information about each event and the length of event names.

1. Click the SET DISPLAY CONTENTS button at the bottom of the panel.
2. Enter the number of tracks you want to display in the NO. OF TRACKS field and the number of rows (up to a maximum of 13) you want to display in the NO. OF ROWS field.

The display is reset with each entry.

3. On the set of buttons on the dialog, click the information you want to display. The amount of information you can see at one time on the screen depends on the number of tracks displayed at one time.

Each button lights and the information is displayed.

4. Enter the number of characters you want displayed in the NAME LEN time field and press Return.
5. Click the SET DISPLAY CONTENTS button again.

Scroll to different tracks using the horizontal scroll bar at the bottom of the screen. Scroll through the rows using the vertical scroll bar on the right side of the panel.

You can also select a track to display by clicking the track number at the top of any column and entering a new number.

Displaying a sequence in the Event List Editor (con't)

Selecting a time format

You can display times in one of six time formats on the Event List Editor panel: Seconds, Minutes:Seconds, Beats, Measures:Beats, SMPTE or Feet:Frames.

1. Click the SELECT TIME FORMAT button at the bottom of the panel.

A set of buttons appears.

2. Click the time format of your choice.

The buttons light, and all selectable times in the system are displayed in the selected format.

3. Click the SELECT TIME FORMAT button again when you are done with this dialog.

Times can be dragged between all time fields in the panel.

Setting edit features

You can choose whether to display the column headings for event information on the Event List Editor panel and whether to have the screen scroll through the Event List Editor while you are playing the sequence or when you perform an edit that moves an event off the screen.

1. Click the SET EDIT FEATURES button at the bottom of the panel.
2. Click the YES or NO button after SHOW HEADINGS to display or hide the headings. (Not all columns have headings.)
3. Click the track heading at the top of the column and type in a new name to change track heading. (The default track heading is the name of the first cue placed on the track.)
4. Click the ON or OFF button after SCROLL to indicate whether you want to scroll through the events list or whether you want to continue to view the same screen.

Scrolling

Use the vertical scroll bar to scroll through the events list. This scroll bar is similar to other scroll bars, except that the scroll box is always located in the center of the bar.

- Scroll fifty lines up or back in the sequence by dragging the scroll box from its current location.
- Scroll to the beginning of the sequence by dragging the scroll box all the way to the top of the scroll bar.
- Scroll to the end of the sequence by dragging the scroll box all the way to the bottom of the scroll bar.

You can also scroll to a specific location using the upper left time field.

- Enter a time into the furthest upper left time field.

The screen is redrawn starting at the entered time.

Displaying a sequence in the Event List Editor (con't)

Displaying end times

The Event List Editor panel can display the time at which an event ends. The end time and the offset time cannot be displayed together.

1. Click the SET EDIT FEATURES button at the bottom of the panel.
2. Click the END TIME button after SHOW EVENTS OFFSETS.

The end time appears with a column of Lock (L) and Take (T) buttons next to it. The Take buttons operate on an end time the same as all other Take buttons. The Lock buttons are described in "Editing the Sequence."

3. Click the SET DISPLAY CONTENTS button at the bottom of the panel.

A new set of buttons appears.

4. Click the END TIME button.

Displaying offset times

The Event List Editor panel can display the assigned offset time for each event. You cannot display the offset time and the end time at the same time.

1. Click the SET EDIT FEATURES button at the bottom of the panel.

A set of buttons appears.

2. Click the OFFSET TIME button after SHOW EVENTS OFFSETS.

The assigned sequence time to which the cue is synced is displayed. This offset time appears with a column of Lock (L) and Take (T) buttons next to it. The Take buttons operate on an offset time the same as all other Take buttons. The Lock buttons are described in "Editing the Sequence." Boxes appear around all Lock buttons, indicating that you are automatically locked.

3. Click the SET DISPLAY CONTENTS button at the bottom of the panel.

A new set of buttons appears.

4. Click the OFFSET TIME button.

Take buttons

On the Event List Editor panel, Take buttons appear in two ways—as a triangle in a box and as a small "T." They operate identically.

The Take buttons ("T") on the far left side of the panel take the current time and stuff it into the event start time. The Take buttons ("T") next to the end times or offset times are used in the same way with those buttons.

The boxed take button in the upper left corner of the panel takes the current time and stuffs it into the time field adjacent to it.

Displaying the sequence in the Recorder Display

The Recorder Display shows up to three tracks of the current sequence on the terminal screen.

Information on editing from this display is in "Editing from the Recorder Display."

The Recorder Display

The Recorder Display is activated from either the Main Menu. You can also click the Recorder Display icon at the upper right of the Selection panel of the Sequence Editor.

The Recorder Display has an instruction area at the top and three track columns across the bottom. The left-most column displays track 1 events—either a notelist or a cuelist.

Events from a notelist—a list of events recorded directly into the sequencer—and events from a cuelist—a list of cues recorded onto a Direct-to-Disk track and placed into a sequence—cannot be mixed on the same track. Both types can be played back alone or in sync with each other or with Direct-to-Disk tracks.

Warning: The Recorder Display should not be used while performing any critical timing functions. These include transferring sequences to tape, transferring to and from MIDI sequencers, and SMPTE applications. Timing errors may result.

Recorder Display

MEMORY RECORDER COMPARATIVE TRACK DISPLAY								
1. Enter track numbers from top-most row to display desired Tracks. 2. Press <DELETE> from top-most row to remove Track from display. 3. Move cursor with arrow keys, and enter values to change notes. 4. Use <TAB> key to view/change mode selections. 5. Press rt to Exit Screen. Press <ENTER> to return to Main Menu.								
Track 1 "GUITAR G1-C5 1.1"			Track 2 "VOICEOV"			Track 3 "PHASED SBAS 37"		
Seconds	Duration		Seconds	Duration		Seconds	Duration	
26.000	A3	1.000				26.000	D2	1.000
27.000	G3	1.000				* 27.000	G1	0.995
27.000	D3	1.000						
27.000	D3	1.000						
27.000	B2	1.000						
* 27.000	G1	1.000	27.335	Q	0.080			
			27.670	Q	0.070			
			28.000	Q	0.105			
			28.335	Q	0.095	28.000	D3	0.660
Current Catalog: W0;								

Viewing additional tracks

You can view up to three tracks of the sequence simultaneously.

1. Click the "No Track Displayed" message over the center notelist.
2. Enter the number of the track you want displayed and press Return.

If the track has already been recorded, the name of the track timbre appears directly under the track number.

Noteline values

A noteline for each note recorded on a track appears in the notelist to which that track is assigned. Each noteline contains three values which define the note in computer music format.

- The first column of the noteline displays the start time of the note in seconds. This is an absolute time; that is, it represents the length of time from the start of the sequence to the moment you played the note.
- The second column contains the pitch name. The pitch of each note is indicated by a standard pitch letter, followed by an accidental, if any, and the octave number. All accidentals are represented as sharps (#). The octave numbers are relative to middle C (C3).

If the track contains a cuelist, a "Q" appears in the second column.

- The third column represents the duration of the note.

Displaying the sequence in the Recorder Display (con't)

Time formats

Five formats are available for displaying starting times and durations of a notes.

- seconds
- beats (clicks)
- measures and beats
- SMPTE time code
- feet and frames

You can change the current time display format from either Recorder Display screen.

1. Move the cursor to the first column of any notelist.
2. Press the Spacebar repeatedly to step through the five alternatives.

OR

1. Press Tab to activate the mode selection panel.
2. Click repeatedly on the Show Times switch to step through the five alternatives.

The song pointer

Whether you are recording or playing back a sequence, the song pointer is represented by an asterisk appearing beside the noteline of each note as it sounds. There is one asterisk for each assigned track, and each moves independently.

When the asterisk reaches the bottom of the screen, the notelines are replaced by the next set of notelines.

When you press stop the sequence, the song pointer stops. At this point, the asterisk location with the largest time value (the latest note played) indicates the true position of the song pointer.

When the end of a recorded track is reached, the asterisk on that track stops on the last recorded note of the track, even though the sequence continues to play.

Scrolling the display

You use the up and down arrow keys to scroll the notelines of any notelist.

- Place the cursor anywhere on the noteline and press the arrow key repeatedly.

When the cursor reaches the top of a notelist, the entire display scrolls down two notelines at a time. When the arrow key reaches the bottom of a notelist, the entire display scrolls up five notelines to allow the next five notelines to appear.

Scrolling the notelines or moving the cursor does not affect the song pointer. It remains at the point where the sequence was last stopped.

Sequencer motion controls

When you are viewing the Recorder Display, you can control the sequencer from the terminal with control keys.

command	recorder function
Ctrl-P	start
Ctrl-E	stop
Ctrl-C	continue
Ctrl-R	rewind
Ctrl-F	fast forward

Ctrl-C continues playing from the position of the screen cursor, not from where the song position pointer (the asterisk) stopped.

Note: If you accidentally use Ctrl-S for either start or stop, the screen freezes. The operation of the sequencer is unaffected. Press Ctrl-Q to unfreeze the screen.

Displaying the sequence in the Recorder Display (con't)

Displaying the track selected for recording

You can assign a notelist on the Recorder Display to display whichever track is selected for recording.

- Instead of a track number, type # in the notelist heading and press Return.

An (R) appears after the notelist heading.

Whenever a new track is selected for recording, the heading and the notes in the column change to match the selected track.

Selecting regions

You can select a region of all tracks on the Recorder Display using the square bracket keys.

1. Move the cursor to the first note line to be selected and press
[(left square bracket).
2. Move the cursor to the note line following the last line to be selected and press
] (right square bracket).

The region is highlighted on the Recorder Display. Its start and end times appear on the Sequence Editor display in the Edit Start and Edit End time fields.

To unselect a region press the left and then the right square bracket keys with the cursor on the same noteline.

Displaying the end time or duration of events

You can change the notelist to display the end time of each event instead of the duration.

1. Move the cursor to the third column of any notelist or cuelist.
2. Press the Spacebar repeatedly until End-Time appears at the top of the column.

All third column values are end times.

OR

1. Press Tab to activate the mode selection panel.
2. Click repeatedly on the Dur/End/Name/Vel: switch until END TIME appears.

All third column values are end times.

Showing the sound file names

If the track timbre is a sound file patch, you can show the name of the sound file associated with each note of the notelist.

1. Move the cursor to the third column of any notelist.
2. Press the Spacebar repeatedly until Soundfile appears at the top of the column.

Soundfile names appear in the third column.

OR

1. Press Tab to activate the mode selection panel.
2. Click repeatedly on the Dur/End/Name/Vel: switch until FILENAME appears.

Soundfile names appear in the third column.

Note: The sound file cannot be changed from the Recorder Display, only from the Patch Display.

***Displaying the
sequence in the
Recorder
Display (con't)***

Displaying the key velocity

You can display the key velocity of any note recorded with velocity as a real-time effect.

1. Move the cursor to the third column of any notelist.
2. Press the Spacebar repeatedly until Velocity appears at the top of the column.

The third column displays a number between 0 and 100 which represents the amount of velocity applied to each note recorded with velocity as a real-time effect.

OR

1. Press Tab to activate the mode selection panel.
2. Click repeatedly on the Dur/End/Name/Vel: switch until VELOCITY appears.

The third column displays velocity values.

Note: Velocity values may be edited as explained in the section "Editing with the Recorder Display."

Displaying real-time effects and MIDI messages

You can change the notelists to display any real-time effects or MIDI messages.

1. Press Tab to activate the mode selection panel.
2. Click on the field after Show Real-Time Effects or move the cursor there and press the Spacebar.

Any real-time effects records or MIDI messages recorded appear in the notelists.

You can edit the real-time effects or MIDI messages. See "Editing from the Recorder Display."

Display mode selection

Normally, each noteline displays the starting time, pitch (or Q) and duration of the notes of the displayed track, but you can display and edit other recorded information.

1. Press Tab to activate the mode selection panel.

At the top of the mode selection menu is a set of commands plus a list of real-time effects controller and MIDI message abbreviations. Below this is a list of display mode commands, each of which changes the information displayed.

2. To change the display, click one of the display mode commands.

Once a display mode has been selected, you can edit any displayed value as described in "Editing from the Recorder Display."

Leaving the display mode or the Recorder Display does not affect the changes.

Displaying the sequence in standard music notation

The Music Notation Display shows up to eight tracks of notes in standard music notation.

Information on editing from this display is in "Editing from the Music Notation Display."

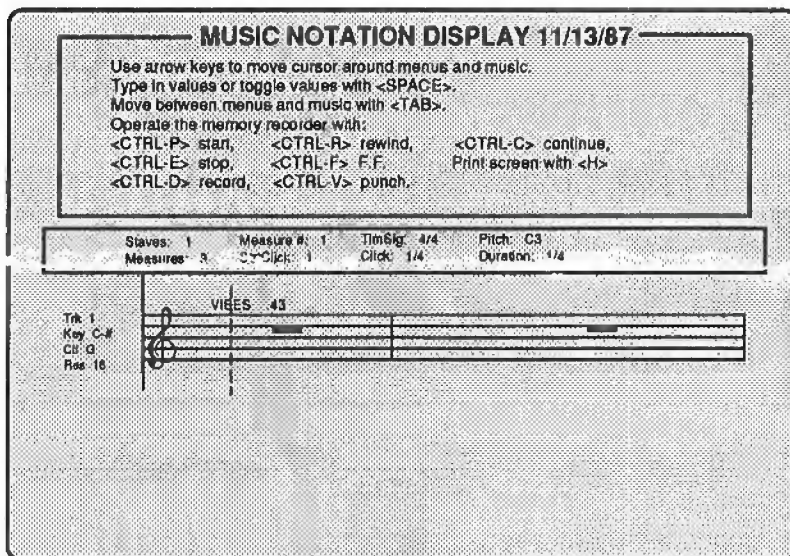
Music Notation Display

The Music Notation Display

The Music Notation Display, activated from the Main Menu, appears with an instruction area at the top, a menu area in the center and down the lower left margin, and a single staff in the notation area at the bottom.

The Music Notation Display is designed for displaying notelists—lists of musical events recorded directly into the sequencer. A track with a cuelist—a list of cues recorded into the Direct-to-Disk and placed into the sequencer—appears with the track name but with no notes on the staff, even if the cues are musical notes.

Warning: The Music Notation Display should not be used while performing any critical timing functions. These include transfer of sequences to tape, transfer to and from MIDI sequencers, and SMPTE applications. Timing errors may result.



Setting the display parameters

Depending on how closely the default menu settings match the sequence parameters, your sequence may not be displayed accurately when it first appears.

1. Move the screen cursor to the upper menu area, the area immediately above the notation area.
2. Move the menu cursor to Click and type in the click value used to record the sequence. Use standard notation values such as 1/4 for a quarter note or 3/8 for a dotted eighth note.
3. Move the menu cursor to TimeSig and type in the appropriate time signature. Cut and common time require the time signature 4/4.
4. Move the menu cursor to Staves and type in the number of staves to be shown at one time.
5. Move the menu cursor to Measures and type in the number of measures to be shown on each staff.

Each time you move the menu cursor, the display is redrawn to show the effects of the previously typed value.

The instructions disappear whenever more than three staves appear in the notation area.

- Press Ctrl-X to make them reappear or to make them disappear when three or fewer staves are on the screen.

Displaying the sequence in standard music notation (con't)

Setting the starting measure

If you want a different starting measure from the one currently displayed, you can change it from the upper menu area.

- Move the menu cursor to Measure# and type in the number of the measure where you want the sequence display to begin.

When you move the cursor or press Return, the display is redrawn to show the new starting measure.

You can also change the display starting location by changing the starting click.

- Move the menu cursor to StrtClick and type in the number of the click where you want the sequence display to begin.

Song pointer

The song pointer on the Music Notation Display is a dotted vertical line. As you play the sequence, the song pointer moves from left to right indicating the notes being played. When the song pointer reaches the end of the line, the next group of measures is displayed and the dotted line again traces the notes across the screen as they are played. You can edit at any point by stopping the sequencer.

The song pointer marks the current click of the sequence; that is, the point at which the sequencer starts if you press Ctrl-C (continue). Moving the notation cursor does not affect the song pointer.

When you play a sequence, the notation drawn on the screen sometimes falls behind the audio output. When you stop the sequencer, the screen catches up, and the song pointer is placed exactly at the point where you stopped the sequence.

Selecting track, clef and key signature

You select the track or tracks to be displayed and set their clefs and key signatures from the left menu area, the area immediately to the left of the notation area.

1. Move the menu cursor to Trk and type in a track number.
2. Move the menu cursor to Key and type in the key name or press the Spacebar to step through the cycle of fifths. Minor key signatures are designated by their relative majors.
3. If you are in a sharp key and want all accidentals to appear as flats, move the menu cursor to the # following the key signature name and type in F for flats. If you are in a flat key and want the accidentals to appear as sharps, move the menu cursor to the F following the key signature name and type in # for sharps.
4. Move the menu cursor to Clf and select the clef for the track. Type in the appropriate letter or use the Spacebar to step through the available clefs.

G	treble
A	alto
T	tenor
F	bass
P	percussion, full staff
S	percussion, single line
H	high treble with octave marking

Each time you move the menu cursor, the display is redrawn to show the results of the previously entered value.

Displaying the sequence in standard music notation (con't)

Setting the resolution

The resolution setting determines the smallest note value to be displayed. The cursor moves in increments equal to the resolution value.

If you set a resolution value of 16, for example, the smallest note displayed is a sixteenth note. When you move the cursor with the arrow keys, it moves across the screen in sixteenth notes.

With a resolution of 16, any notes smaller than a sixteenth (thirty-second notes or sixty-fourth notes) are also displayed as sixteenth notes. A series of thirty-second notes appears as a chord. The resolution setting affects only the display, however. The actual value in the sequence of the smaller notes remains unchanged.

You can use the resolution setting to view the actual attacks of notes in a pre-recorded sequence. For example, a sixteenth note recorded slightly before or after the beat appears on the beat if a resolution of 16 is used. With a resolution of 32 or 64, the display shows the exact location of the attack.

- Move the menu cursor to Res in the left menu area and type in the desired resolution.

When you move the cursor or press Return, the display is redrawn to reflect the new resolution.

Display parameter summary



The Pitch and Duration items on the right show the values of the last note entered. They do not need to be set to display the sequence accurately.

Pitch	Reflects the pitch of the last note entered by letter and range (C3 = middle C). Desired pitch can be typed in.
Duration	Reflects the duration of the last note entered as a standard notation value, such as 1/2 for a half note or 3/8 for a dotted eighth note. Desired duration can be typed in.
Click	Defines the click period as a standard notation value, such as 1/2 for a half note or 3/8 for dotted eighth note. Set it to the click value used to record the current sequence or a value appropriate to the composition being written or copied.
TimeSig	Sets the time signature for the display. Cut and common time require a setting of 4/4.
Staves	Sets the number of staves to be displayed in the notation area. Up to three can be shown with the instruction area in view; four to eight can be shown in normal size without the instruction area or compressed with the instruction area.
Measures	Sets the number of measures shown on each staff. The more measures displayed per staff, the more densely packed the notes.

Displaying the sequence in standard music notation (con't)

Moving between menu and notation areas

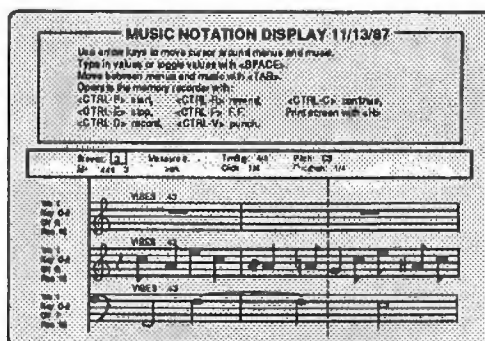
When you move the screen cursor from the menu to the notation area and back again, the cursor changes its appearance and the instruction area displays different instructions.

	Cursor in menu area	Cursor in notation area
Cursor shape		
Instructions	General	Editing

You move the screen cursor from one area to the other in one of the following ways:

- Press Tab to return the cursor to its most recent position in the other area.
- Click at the desired point to move the cursor to that point.

Music Notation Display with general instructions and menu cursor (after "Staves:")



Music Notation Display with editing instructions and edit cursor (at the beginning of the first staff)

Moving the notation area cursor

You use the right or left arrow keys to move the notation area cursor forward or backward in amounts determined by the resolution value.

You use the up or down arrows to move the notation cursor range indicators up and down and to move the notation cursor up or down to different staves.

You can also use the letter R (rest) to move the notation area cursor forward in amounts determined by the duration value in the upper menu area.

1. With the cursor in the notation area, enter a duration value by typing one of the following numbers. They may be followed by a dot (.) for dotted values.

- | | |
|---|--------------------|
| 1 | whole note |
| 2 | half note |
| 4 | quarter note |
| 8 | eighth note |
| 6 | sixteenth note |
| 3 | thirty-second note |

The Duration value in the upper menu area changes to reflect the value entered.

2. Press the letter R (for rest).

The notation area cursor moves forward by a note value equal to the duration setting.

You can also move the notation cursor with the trackball.

- Move the trackball cursor and click.

The screen cursor moves to the new location.

Turning the page of the Music Notation Display

There are three ways to turn the page of the Music Notation Display.

- Move the cursor beyond the right margin with the right arrow key to automatically scroll ahead to show the next page and the last measure of the previous page. The cursor is positioned at the far right.
- Move the cursor beyond the left menu area with the left arrow key to automatically scroll back to show the preceding page and the first measure of the previously displayed page. The cursor remains in the left menu area.
- Enter a note or rest that extends beyond the right margin to automatically scroll ahead to show a new page and the last measure of the previous page. The cursor is positioned at the end of the note or rest entered.